Reprint

INDUS VALLEY TO
MEKONG DELTA
Explorations in Epigraphy

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I. THE HARAPPAN CULT OBJECT

1.1. The most characteristic artefact of the Indus Civilization is the square stamp seal made of stone, featuring a one-horned bull (the so-called ‘unicorn’) with a cult object placed in front of the animal and a brief inscription above (Fig. 1). The cult object is depicted as a device consisting essentially of two parts, namely a generally cylindrical upper vessel and a hemispherical lower vessel with a long stem at the base. It has been variously identified as an incense burner (Marshall), or a bird-cage (Mackay), or a crib and stable rack (Friederichs), or as a calendar system to indicate the Jovian cycle of sixty years (Knorozov et al.). The present paper suggests a new identification of the cult object as a ‘Sacred Filter’ on the basis of pictorial representations of the object on Harappan artefacts as well as parallels from the Soma ritual in the Rgveda (RV).

1.2. The Harappan cult object appears as a pictorial symbol on seals, sealings, miniature-tablets and a few other miscellaneous objects. No actual object resembling this symbol has so far been found from any Harappan site and it is thus likely that the original was made of some perishable material like wood. The following Table summarises the statistics of frequency and distribution of this symbol:
Occurrences of the cult object symbol on

<table>
<thead>
<tr>
<th>Sites</th>
<th>Seals</th>
<th>Sealings</th>
<th>Miniature Tablets</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohenjodaro</td>
<td>658</td>
<td>12</td>
<td>—</td>
<td>670</td>
</tr>
<tr>
<td>Harappa</td>
<td>187</td>
<td>19</td>
<td>4</td>
<td>210</td>
</tr>
<tr>
<td>Chanhudaro</td>
<td>37</td>
<td>—</td>
<td>—</td>
<td>37</td>
</tr>
<tr>
<td>Lothal</td>
<td>31</td>
<td>26</td>
<td>—</td>
<td>57</td>
</tr>
<tr>
<td>Kalibangan</td>
<td>22</td>
<td>9</td>
<td>—</td>
<td>31</td>
</tr>
<tr>
<td>Other sites</td>
<td>7</td>
<td>3</td>
<td>—</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>942</td>
<td>69</td>
<td>4</td>
<td>1015</td>
</tr>
</tbody>
</table>

Note: The statistics relate only to inscribed objects with texts included in my book, *The Indus Script: Texts, Concordance and Tables (IS)*.

The cult object is the third most frequent symbol depicted on the Harappan inscribed objects, next only to the JAR sign (IS, sign 342) of the Indus Script (1395 times) and the unicorn among the field symbols (1159 times). The cult object appears almost always paired with the unicorn (985 times). The most common arrangement of this classic Harappan motif has the unicorn facing right (as seen in impression) with the cult object placed in front under the head of the animal (e.g. MIC 38). In a few cases the unicorn faces left and the cult object is also found at the left (e.g. FEM 8).

1.3. There are a few exceptional cases where the cult object is associated with animals other than the unicorn. Such cases include the two-horned urus ox, probably identical with the ‘unicorn’, though this is not certain, as the horns are of different types (e.g. FEM 234); a fabulous animal resembling in parts both rhinoceros and urus ox (FEM 140); the long-tailed ox-antelope on a seal from Chanhudaro (CE, L1 : 21); the short-tailed goat-antelope on a seal from Lothal (IS 7025); and the horned tiger on a seal from Banawali (IS 9201). It is noteworthy that with the two partial exceptions listed first above, only the unicorn is accorded
the honour of being accompanied by the cult object at Mohenjodaro and Harappa, and the rare association of this object with other animals on seals found at other Harappan settlements may perhaps represent local or later developments.

1.4. The cult object also appears a few times as the sole pictorial motif on inscribed objects indicating its status as an object of veneration in its own right. A unique seal from Harappa (EH 256) depicts the cult object on the left half of the field and a two-line text on the right half (Fig. 2). A few sealings (EH 320, 321, 652, 665 and duplicates in IS) and miniature tablets (EH 440, 441, 443, 533) depict the cult object as the sole motif on one side and carry the text on the other side (or sometimes on both sides).

1.5. Three sealings which depict the cult object as part of ritual scenes are of special interest as they provide an insight into the true nature and function of this enigmatic device:

(i) **Cult object in procession** (Fig. 3):
Two identical prismatic sealings from Mohenjodaro (MIC, CXVI: 5, 8) depict four persons in procession, each carrying a tall standard with a different cult object on the top. One of these objects appears to be the cult object studied here (with only the lower vessel visible) and another, probably the unicorn (with the horn missing). The third object appears to be some kind of a cloth banner, while the fourth has been obliterated. The other two sides carry a text of six signs. Marshall (MIC, p. 69) compares these standards with the sacred Nome standards of Egypt. Mackay (MIC, p. 384) compares the scene with the one found on the mace of Narmer of Egypt.

(ii) **Cult object as a standard** (Fig. 4):
An oblong sealing from Harappa (EH 309) depicts the cult object on both sides. On one side, the object is drawn on an immense scale in comparison with the person who holds it aloft with both hands as a ceremonial standard. One line of inscription is found by the side of the stem of the cult object. On the other side the cult object occupies the field flanked by one line of text on either side of the stem.
(iii) Cult object as part of a frieze (Fig. 5):
Three identical oblong sealings from Harappa (EH 322; IS 5243, 5244) depict a frieze on one side and a text of four signs on the other. The frieze consists of alternate representations of the cult object and small circles arranged in vertical columns. The exceptional importance of the motif which is one of the major clues to the identification of the cult object will be considered presently.

1.6. We may also notice here the occurrence of the cult object on three other interesting artefacts not bearing any inscriptions:

(i) A gold fillet from Mohenjodaro depicting the cult object at both ends (MIC, p. 219; pl. CXVIII: 14);

(ii) A circular steatite pectoral of exceptional workmanship from Mohenjodaro depicting the unicorn facing right with the cult object in front and a vase above the animal. (FEM, pl. CXL : 59).

(iii) An unpublished oblong sealing from Harappa depicting the cult object on one side and a tree within a railing on the other (ASI 63.11.226; Pu. 63. 4394–95).

1.7. Marshall (MIC, p. 69) identified the cult object as an incense-burner which possibly served simultaneously as a lamp also. According to him the object consisted of two vessels fixed on to a short central staff and was intended to be carried in hand. The lower bowl carried the fire as indicated in some cases by short thin lines rising from its upper surface indicating flame. The upper vessel appeared to him to be of open metal work, possibly revolving on a stem, and containing incense. He suggested that incense played a prominent part in the cult of the one-horned ox. Vats (EH, pp. 321–22) agreed with Marshall on the identification of the cult object as an incense-burner and expressed the view that as it was depicted alone on sealings and tablets from the lower levels of Harappa, it was worshipped even before it came to be associated with the cult of the unicorn.

1.8. Marshall’s identification of the cult object however suffers from a fatal flaw. One would expect any representation of an incense-burner to indicate smoke rising from the incense, rather than flame. In more than a thousand representations of the cult
object available to us, there is not a single instance indicating smoke or fumes arising from the incense supposed to be contained in the upper vessel. Even if the short lines appearing above the lower vessel in a few instances could possibly indicate flame, this explanation cannot be valid for the rows of small circles or lines arranged radially below the lower vessel in a much larger number of specimens. Marshall's explanation of these as "points" representing "small flames rising above the sides of the vessel" (MIC, pp. 69,383) is not convincing.

1.9. Mackay (MIC pp. 383-84) regarded the upper vessel as more likely to be made of basket-work with varying coarse or loose weaves as suggested by the grid-like lines appearing on its surface. He thought that the lower vessel was made of leather or wood, as some specimens seem to show embossed rosette-like marks on the sides, while other specimens resemble basket-work. He also thought that the upper and the lower vessels are held together by a staff made of wood or metal running through both. He suggested 'with diffidence' that the cult object was a cage and that it held a bird.

1.10. It is surprising that if the upper vessel were indeed a cage made of loosely woven open-type basket-work as suggested by Mackay, the bird inside is never once visible! However it is only fair to add that Mackay himself implicitly withdrew this somewhat odd suggestion when he later admitted that "no really satisfactory explanation of the meaning or purpose of these cult objects has yet been recorded" and added that "this cult-stand presents a problem which one day, no doubt, will be satisfactorily solved" (Mackay, CE, p. 147).

1.11. H. F. Friederichs, in a paper mainly devoted to the identification of the animals appearing on the Harappan inscribed objects (Der Alte Orient, Vol. 32, 1933, pts. 3 & 4, pp. 1-120) identified the lower receptacle of the cult object as a crib, the upper one as a stable rack and the upper projecting lines from the edge of the lower basin as representing fodder. I have had no access to the original paper, but I am inclined to agree with Mackay's comment (FEM, p. 670) that "this particular object cannot be so easily explained", as it seems to be a ritual object carried in procession and venerated in its own right. There is no recorded tradition of cribs or racks being objects of worship.
1.12. After a long interval of four decades, the challenge of identifying the mysterious cult object was again picked up, this time by a group of Soviet scholars working on the decipherment of the Indus Script (Volchok in Knorozov et al.,*Proto-Indica*: 1972; Knorozov et al.,*Proto-Indica*: 1979). In brief, the Soviet scholars regard the cult object as a combination of two symbols, the top portion appearing in five variants and the bottom portion in twelve variants. The variants are distinguished by means of minor differentiation in the number and treatment of details like vertical strokes and horizontal lines of the upper part and the ornamentation of the lower part with curved lines, small circles etc. The Soviet scholars interpret the upper part as representing a five-year cycle based on solar-lunar correlation, and the lower part as representing a twelve-year cycle based on the correlation of the courses of the sun and Jupiter. The combination of the five-year and the twelve-year cycles formed the sixty-year cycles, pictorially represented by the combination of the upper and the lower parts of the cult object into a single device. Thus according to the Soviet interpretation, the cult object is a symbol representing, through variations of design, each of the sixty years of the Jovian Cycle, and usually used for dating the seals.

1.13. The problem with the Soviet theory of Maya-like calendar glyphs is that the variations in the details or ornamentation of the Harappan cult symbol are simply too many to admit of a precise total of sixty types only. Volchok herself admits that there are many variations not included in the ‘recognized’ list of sixty types, but explains, rather unconvincingly, that these may be “stylistic differences which are perhaps characteristic of certain twelve-year periods only” (*Proto-Indica*: 1972). Again as volchok herself points out, there are many cases where the representations are too small to admit of much detail. The beautifully carved and well-preserved steatite pectoral from Mohenjodaro delineates only the contours of the cult object without any inner ornamentation, showing that such details (while they may not be devoid of significance) are not essential to the recognition of the symbol. It is difficult to explain why dates were represented on objects like the golden fillet and the steatite pectoral. For these reasons I feel that the Soviet interpretation of the Harappan cult object as a calendar device is not convincing.
1.14. The new interpretation of the Harappan cult object proposed here is based on a close study of over one thousand representations of the symbol seen by me in originals or photographs when I was engaged in copying the texts in the Indus Script. As I was looking closely at the unicorn seals in the magnificent collections of the Archaeological Survey of India and the National Museum, New Delhi, it occurred to me that the two basic elements pictorially emphasised in the Harappan cult symbol, namely the ‘flow’ depicted by the parallel zigzag lines drawn through the upper vessel and the ‘drops’ depicted in and around the lower bowl, correspond rather precisely to the two central features of the Soma sacrifice as described in the RV, namely pavamāna the ‘flowing(one)’ and indu, the ‘drop’ mentioned in almost every hymn of the Ninth Maṇḍala dedicated wholly to Soma. These are the two clues which gradually led to the recognition that the Harappan cult object is in fact a filter device, the upper vessel acting as a strainer and the lower perforated bowl as a sieve.

1.15. I shall first describe the component parts of the Harappan cult object and then proceed to explore the close parallelisms between the pictorial representations of this object and the rich and varied imagery of the Soma ritual in the RV. A representative selection of the main variants of the cult object depicted on the larger and better preserved unicorn seals from Mohenjodaro and Harappa is reproduced in Fig. 6 from the plates of MIC, FEM and EH. The illustration in Fig. 7 is a composite drawing bringing together twelve distinct features of the cult object depicted on different seals. The features (serially numbered 1 to 12 from top to bottom in Fig. 7) are described below in detail. In dealing with each feature, I shall cite the best examples from the plates of MIC, FEM and EH for comparative study.

Features of the Harappan cult object (Fig. 7)

(1) Ring or handle at the top of the upper vessel:

This feature is seen clearly in MIC 3, 15, 17, 19; EH 2, 3, 5, 17. Its purpose is presumably to serve as a handle to carry the upper vessel by hand or for suspension from above. Thus it appears that the upper and the lower vessels were not joined to each other and were independently supported.
(2) **The body of the upper vessel:**

The upper vessel is generally cylindrical in shape and often slightly flared at the top and the bottom. Excellent examples may be seen in *MIC* 9, 18, 38; *FEM* 149, 422; *EH* 1, 3, 6. A major variant depicts the upper vessel as hemispherical in shape giving it the appearance of an ‘inverted basket’. This shape may be seen clearly in *MIC* 36, 88, 92; *FEM* 11, 398, 644; *EH* 72, 256. The upper vessel appears to be a hollow container.

(3) **Schematic depiction of the downward flow of liquid through the upper vessel:**

The most conspicuous feature of the upper vessel is a series of close parallel lines, drawn vertically or in a wavy zigzag fashion, traversing the length of the vessel. Straight vertical lines may be seen in examples like *MIC* 2, 18, 37; *FEM* 11, 225; *EH* 4, 6, 10. Good examples of the wavy or zigzag lines will be found in *MIC* 9, 38; *FEM* 19, 69, 149, 396, 436; *EH* 1, 3, 9, 12. The clue to the true function of the upper vessel is provided by the wavy, zig-zag lines which represent schematically the downward flow of some liquid through the vessel.

(4) **Schematic depiction of filtering medium in the upper vessel:**

The upper vessel is generally marked by a series of two to five parallel horizontal lines. These lines are straight when the shape of the vessel is cylindrical (e.g. *MIC* 9, 18; *FEM* 149; *EH* 4, 6), and generally curved or convex when the shape of the vessel is hemispherical (e.g. *MIC* 90, 100; *FEM* 11, 74, 147; *EH* 256). In some specimens the horizontal lines are arranged in three or four pairs giving the distinct impression of separate layers of some thick material (e.g. *MIC* 39, 69; *EH* 50, 256). Since the zig-zag lines appear to indicate the downward flow of some liquid through the upper vessel, I interpret the horizontal lines (straight or curved) as schematically depicting successive layers of some kind of porous filtering medium placed inside the upper vessel.

(5) **Schematic depiction of the streaming of liquid from the upper vessel into the lower vessel:**

Many of the larger seals depict realistically the stream of liquid pouring from the upper vessel through the intervening space into the lower vessel. (See especially the examples in *MIC* 18, 38;
The Cult Object on Unicorn Seals...

Depiction of this feature as a thin straight column is to be regarded as conventional (e.g. MIC 19, 22; FEM 14; EH 693).

(6) A small circular device between the two vessels:

Just above the upper rim of the lower vessel, a small circular device sometimes with slightly upturned ends is seen on some specimens (e.g. MIC 9, 18, 38, 56; EH 693). This is probably a channel or funnel–like device to receive the liquid flowing from the upper vessel and to regulate its flow into the lower vessel.

(7) Splash of liquid above the top of the lower vessel:

In some examples short, thin and sometimes curved lines are shown rising from the top of the lower vessel (e.g. MIC 38; EH 3). These short lines depict the splash of liquid as it pours in a stream from the upper vessel into the lower vessel.

(8) The lower vessel:

The lower vessel is a hemispherical bowl (e.g. MIC 9, 18, 38; FEM 616; EH 1, 3, 6), Occasionally the bowl is shown with a concave upper rim giving it a crescent–like appearance (e.g. MIC 8; FEM 422), or with a conical projection at the middle point where the liquid flows into the vessel (e.g. MIC 126; FEM 74,644; EH 256).

(9) Perforations on the sides of the lower vessel:

The most conspicuous feature of the lower vessel consists of the markings seen on its sides. These are of three main types:

(a) ‘eyes’ or ‘rosettes’ formed by small circles with central dots (e.g. MIC 16, 38; FEM 422, 616; EH 4, 7, 8);

(b) ‘knobs’ or ‘bosses’ which appear as round projections from the sides of the vessel (e.g. MIC 9, 18, 29, 124; FEM 19, 26, 149, 340; EH 6, 17, 40);

(c) curved, wavy or circular lines (e.g. MIC 30, 33, 40, 61, 66, 92; FEM 33; EH 1, 3, 9, 12, 24, 30).

The feature in type (a) above, namely circles with small central dots, provides the clue to the real function of the lower vessel which appears to be a perforated bowl. It acts as a sieve receiving the filtered liquid from the upper vessel and allowing the clear filtrate to trickle out as drops through the orifices on the sides, while impurities still remaining after filtration would settle
at the bottom of the vessel. What makes this interpretation very likely is the depiction of ‘drops’ actually emerging out of the sides of the lower vessel and also surrounding it. This feature is dealt with in (10) below.

As regards type (b) above, I suggest that what appear to be ‘knobs’ or ‘bosses’ are in fact a schematic representation of ‘drops’ of liquid inside the lower vessel, as if the bowl holds a collection of ‘drops’ rather than the liquid in mass. The reason for this unusual representation seems to lie in the ritual importance attached to ‘drops’ of the liquid in the filtering ceremony, judging from the parallelism of the role of indu (‘drop’) in the Soma ritual to be considered more fully in the next section.

The design in type (c) above, namely the curls or circular or wavy lines may be interpreted as artistic depiction of the swirl or eddy of the liquid or the waves on its surface generated by the streaming of the liquid from the upper vessel into the lower bowl. In general, wavy lines represent conventionally water or any other liquid.

(10) Drops of liquid around the lower vessel:

The most vital clue to the true function of the Harappan cult object is the depiction of ‘drops’ of liquid emerging through the perforations on the sides of the lower vessel and also surrounding the vessel in a symbolic manner. There are several examples which depict the drops in the actual process of trickling through the orifices on the sides of the vessel. These drops have the characteristic hemispherical or elongated shapes with ‘waists’ or shown as thin lines radially arranged around the lower sides of the bowl suggesting the spurting of the liquid in jets. Examples of the motif of ‘emerging drops’ can be seen in:

MIC 2, 35, 36, 37, 54, 64, 70, 77, 84, 90, 91, 101, 166, 236, 237;

MIC 41 shows thin pin-like lines radially arranged around the bottom of the bowl. (See also the eye-copy of G. R. Hunter, 1934, pl. I, 322).

FEM 2, 11, 225, 312, 351, 412, 578;

EH 10, 35.

A very common motif is a semi-circular row of small circles surrounding the sides of the lower vessel. I interpret the motif as drops of liquid surrounding the bowl in a symbolic manner. Good examples of this arrangement can be seen in:
The interpretation of the small circles around the lower vessel as ‘drops’ of liquid is supported by several lines of evidence, namely the flow of liquid through the upper vessel, the pouring of liquid as a stream into the lower vessel, perforations on the sides of the lower vessel, the depiction of emerging ‘drops’ through the orifices, and wave-like lines on the sides of the lower bowl. It is also significant that while the circles on the bowl may or may not have central dots (representing respectively orifices or ‘drops’), the circles around the bowl are never shown with the central dots as they can represent only the ‘drops’. Further the drops surround even those bowls in which perforations are not depicted (e.g. MIC 40, 61; EH 10, 256). This is evidence to show that the lower bowl was perforated in all cases and the artistic convention permitted the depiction of different aspects of the liquid as ‘drops’, ‘waves’ etc.

(11) The stem attached to the lower vessel:

The lower bowl is supported by a slender vertical stem attached to its base (e.g. MIC 38; FEM 422; EH 1). The stem is generally thicker at the lower end. The purpose of the stem is presumably to hold the lower bowl by hand as in fact shown on some sealings (MIC, CXVI: 5, 8; EH 309). I venture to suggest that the stem was not a part of the real life-size filter device and was attached only to small-scale hand-held models used as standards in processions or for symbolic ritual purposes (Figs. 3 & 4).

(12) The pin-like device on the stem:

There is a short pin-like device inserted horizontally in the vertical stem just below the base of the lower vessel, probably to prevent the bowl from slipping down the stem. The pin is thicker or slightly bent at one end. Examples of this device can be seen in MIC 38, 66; XCVI: 5, 8; EH 2). This feature appears to indicate that the lower bowl had a hole at the bottom into which the stem was inserted tightly (in the hand-held standards seen in the pictorial representations).
FIGURES, 1—5.

Harappan Inscribed Objects with the 'Sacred Filter' Symbol
Fig. 1: MIC 38; Fig. 2: EH 256; Fig. 3: MIC, pl. CXVI, 8;
Fig. 4: EH 309; Fig. 5: EH 322.
'Sacred Filter' Standards on Unicorn Seals

A. MIC 9; B. MIC 18; C. MIC 38; D. FEM, 422;
E. MIC 2; F. MIC 41; G. EH 3; H. EH 256.
FIGURE 7.

A Composite Drawing of the Harappan Sacred Filter
FIGURE 8.

A. 'Mortar' Signs

B. 'Flow' Signs

C. 'Sieve' Signs

D. 'Offering' Signs

Signs of the Indus Script Connected with the Sacred Filter

A. 'Mortar' Signs: IS 335–337; 34.
B. 'Flow' Signs: IS 119–121.
C. 'Sieve' Signs: IS 332–334.
D. 'Offering' Signs: IS 328, 32, 44–46.
II. PARALLELISM WITH THE SOMA RITUAL OF THE RGVEDA

2.1. Before I proceed further with a comparative study of the Harappan cult represented by the Filter symbol and the Soma ritual of the RV, I must emphasise that I shall be dealing only with the physical or naturalistic aspects of Soma as the pressed juice and with the mechanical details of its purification through a filter device. Soma is also of course one of the most important deities of the Vedic religion; and the Soma poetry, no less than the other parts of the RV, is often couched in metaphysical language with deeper mystical significance. I have no competence to go into these aspects, but happily this is not necessary for the present purpose.

2.2. Soma sacrifice forms the main feature of the ritual of the RV. The Ninth Manḍala of the RV is entirely dedicated to the praise of Soma. The word Soma means ‘pressed (juice)’. The Soma ritual consists essentially of three stages, namely.

(a) PRESSING (savana) the stalk (aṁśu) of the Soma plant between stones (adri, grāvan) or in a mortar (ulūkhalal) to extract the juice;

(b) PURIFYING (punāna) the Soma juice by allowing it to flow (pavamāna) through a strainer (pavitra) made of wool (vṛdra, roman) of sheep (avya, meṣya) and through a sieve (aṇvi) before collecting the filtered juice in wooden vessels (kalaśa, kośa, droma);

(c) MIXING (aśir) the purified juice with milk, curds or barley and offering it to the gods, especially to Indra, the Soma drinker par excellence (somapāh).

2.3. A comparative study of the pictorial variants of the Harappan Filter symbol and the descriptions of the Soma ritual in the RV, especially in the Ninth Manḍala, has led to the identification of five principal features which appear to be common to the Harappan and the Rgvedic rituals, namely

A. The Strainer (pavitra)
B. The Sieve (aṇvi)
C. The Flow (pavamāna)
D. The Drop (indu)
E. The Bull (vṛṣan)

These parallelisms are considered below in detail.
A. The Strainer (pavitra)

Components of the Filter Device:

2.4. The filter and its component parts are very frequently mentioned in the Soma verses of the RV. (For a list of the ‘filter’ words see Vedic Index, I. 508; Hillebrandt, Vedic Mythology Eng. tr., I. 297). The RV does not however describe how the filter apparatus was assembled. In the absence of this information the technical terms associated with the filter have been interpreted by the commentators in the light of the later ritual practices which differed in many respects from those of the Rgvedic times. Modern scholars are also not in agreement as to the significance of several of these expressions. The translators in English (Wilson, Griffith and Bhave) employ the terms ‘filter’, ‘strainer’ or ‘sieve’ generally as synonyms. I shall translate pavitra as ‘strainer’ and apva or avvi as ‘sieve’, reserving the term ‘filter’ to denote the composite device consisting of both the elements. The necessity for this distinction will become clear as I proceed with the argument. We shall see presently that the identification of the Harappan cult object as a filter with a two-tier arrangement consisting of a strainer above and a sieve below provides us with new insights into the significance of several technical terms, metaphors and allusions in the Soma verses of the RV, which have so far remained obscure.

Sheep wool (avyaḥ vāram):

2.5. Sheep wool was used for straining the Soma juice. This is very often mentioned in the RV:

\[ \text{tiras̄ pavitraṁ vi vāram avyaṁ (9.109.16).} \]

“Through the sheep wool strainer”.

The association between the strainer and the sheep wool was so close that the RV often uses the terms ‘sheep wool’ or even merely ‘sheep’ to stand for the ‘strainer’ in the Soma verses:

\[ \text{pavate vāre avyaye (9.36.4).} \]

“(Soma) flows into the sheep wool (strainer)”.

\[ \text{somaḥ punāno arṣati sahasrāṅkō aty avih (9.13.1).} \]

“Soma, being purified, flows thousand-streamed, beyond the sheep (wool) (strainer)”. 
It appears that loose woollen fibres were employed for straining as there is no mention of woven or plaited fabrics in this context. The words vāra and roman both mean ‘hair’ and it is unlikely that they were used in the sense of ‘cloth’. (The term daśāpavitra, ‘fringed woollen strainer cloth’ cited in the commentaries occurs only in the later texts.)

'Top' of the filter device (sānu)

2.6. The loose woollen fibres must have been supported by being placed or packed inside a container or vessel through which the raw juice must have been strained into the receptacle placed below. This arrangement is in fact suggested by the term sānu, interpreted by Macdonell as the 'top of the contrivance' (Vedic Mythology, p. 106). The two words avya and sānu occur so often together as to suggest that the sheep wool was placed at the top of the filter device:

yad avya esi sānavi (9.50.2).

“When (thou) goest into the top of the sheep (wool) (strainer)”

pavitre adhi sāno avyaye (9.86.3).

“At the top of the sheep (wool) strainer”.

Translations of the phrase sānu avye (9.97.3) as “elevated fleece” (Wilson) or “fleecy summit” (Griffith) have tended to obscure its simple and natural meaning. A comparison of the Harappan Filter symbol with the Rgvedic expressions cited above indicates that the upper vessel corresponds to sānu, the ‘top’ of the Vedic filter device, and the horizontal bands of lines drawn across the upper vessel represent layers of some porous medium for straining (probably sheep wool as described in the RV).

B. The Sieve (apvi)

2.7. The terms apva and apvi generally denote a ‘fine sieve’ in the Soma verses of the RV:

sūro apvam vi yati (9.91.3).

“Soma (lit., the sun) goes through the fine sieve”.
Both Veṅkaṭa Mādhava and Sāyaṇa explain āṇvam here as 'sūkṣmaμacchidram pavitram', ‘a sieve with fine holes’. Sāyaṇa also connects āṇvam with the uparava holes (dug into the ground in later ritual). Sāyaṇa again refers to ‘holes in the filter cloth’ in his gloss on 9.14.4. Wilson translates āṇvam in 9.91.3 as ‘filter’. Griffith translates āṇvam in 9.10.5 as ‘through the openings of cloth’ and āṇvesu in 16.2 as ‘through the sieve’. Bhawe generally renders āṇva, āṇvi and related forms as ‘thin (strainer)’ (9.10.5), ‘sieve’ (9.14.6), or ‘fine strainer’ (9.26.1). The commentators however mostly translate āṇva or āṇvi as ‘slender fingers’, probably taking their cue from 9.1.7 where āṇviḥ definitely refers to the ‘slender (maidens)’, a metaphor for the ‘fingers’ of the Soma pressers. Bhawe (SH, 1.66) refers approvingly to Grassmann’s view that āṇva (āṇvi) in the singular stands for the ‘fine soma-sieve’ while the plural forms refer to the ‘fingers’. However Bhawe himself interprets the plural āṇvesu in 9.16.2 as ‘fine (strainer chords)’. After a careful review of the occurrences of āṇva, āṇvi and the related grammatical forms, I suggest that with the exceptions of 9.1.7 where āṇviḥ refers to the ‘(slender) (maidens)’, 9.86.47 and 9.107.11 where āṇvani mēṣyaḥ refer to the ‘fine (hairs) of the sheep’, all other occurrences can be interpreted as ‘fine (sieve)’ in the singular or as ‘fine holes (of the sieve)’ in the plural (cf. 1.3.4; 9.10.5; 14.6; 15.1; 16.2; 26.1 and 91.3). It now appears likely that the lower perforated bowl of the Harappan Filter device corresponds to āṇva or āṇvi, the ‘fine Soma sieve’ of the RV. This means that the Ṛgvedic filter device was, like its Harappan prototype, an assemblage of two vessels one below the other, an upper vessel (sānu) filled with sheep wool (avyah vāram) acting as a strainer (pavītra) and a lower perforated bowl acting as a fine sieve (āṇva or āṇvi).

The Sieve as Soma’s place of birth (yoni):

2.8. The receptacle in which Soma ‘settles down’ or is ‘seated’ is often referred to as the yoni in the RV:

ā yoniḥ somaḥ sukṛtam niṣidati (9.70.7).

“Soma sits on the well-made place”.

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Yoni means literally the ‘womb’, but conventionally translated in this context as ‘place’, ‘seat’ etc. The problem here is why the Soma receptacle is called the yoni, rather than the mountain, the pressing stones or the sheep wool strainer where the Soma plant, its raw juice and the purified drink respectively arise. Bhawes suggests a solution to this puzzle on the basis of the later ritual practice in which the droṇakalasa is placed on wooden pressing boards which may be regarded as the place of birth of the Soma juice (SH, I, pp. 9-10). Quite apart from the fact that there is no mention of the pressing boards in the RV, this interpretation is somewhat contrived and does not really explain why the vessel is called the yoni. I suggest that the expression makes sense once it is interpreted in the light of the Harappan cult object. The Soma vessel which is perforated and functions as a sieve produces clarified Soma juice through its orifices. Thus it is here that Soma, the sacrificial drink, is ‘born’. Hence the Soma receptacle is in fact literally the yoni, the womb, place of birth or origin of Soma.

Interpretation of legends of Indra based on the Soma sieve:

2.9. This new interpretation leads in turn to the recognition that the fine sieve of Soma is the physical basis of three legends connected with Indra, one of them being mentioned in the RV itself:

(a) Indra’s birth through the ‘side’ of his mother: Indra is often spoken of as ‘having been born’. In a hymn dealing with his birth (4.18) he is described as wishing to be born in an ‘unnatural’ way through the ‘side’ of his mother. Says Indra:

naham ato nirayā durgahaitat
tirascatā pārvān nirgamāni (4.18.2).

“Not this way go I forth: hard is the passage.
Forth from the side obliquely will I issue” (Griffith).

The key word here is tirascata, ‘obliquely’, ‘slantingly’ or ‘transversely’. The same word is used once again in the Ninth Maṇḍala where it describes the path of the Soma juice through the sieve (aṇīya):
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ati śrīti tiraścata gavya jīgaty aṇavya (9.14.6).

“For the sake of resort, he (Soma) goes over the slanting (path) through the sieve towards the cows’ (milk)” (Bhawe).

Now we can solve the mystery of both the allusions. The Soma sieve was a vessel perforated on its sides, through which the drops of the filtered juice came out (as vividly represented on many Harappan seals). While it is natural for a liquid to be poured out of the top or even the bottom of a vessel, it is quite unusual (and hence unnatural) for a liquid to come out of the sides of the vessel. It is this unusual course that is referred to in 9.14.6 with the expression tiraścata (‘obliquely, slantingly or transversely’). This confirms that the RV did indeed know of a sieve-like Soma bowl perforated on the sides (aṇva, aṇvi) as represented by the lower vessel in the Harappan Filter symbol. By a well-known process in the Vedic hymns, the traits of Soma are transferred to its greatest drinker, Indra. The physical basis of the myth about Indra’s birth through the ‘side’ of his mother now becomes clear. Indra is so depicted because this is how indu, the ‘drops’ come out of the Soma sieve, through the orifices on the sides of the vessel, obliquely, slantingly or transversely.

(b) Soma coming out of every pore on Indra’s body:

According to a later legend, Indra drank pure Soma which pressed forward again through all the openings of his body so that the gods had to cure him by means of the sautramaṇi ceremony (SBr. V. 5.4.9. ff). Hillebrandt (VM, I. 423, n. 238) points out that this ceremony was known by name as early as in AV. III. 3.2, and expressess his conviction that the ritual was still older. Here again the physical basis of the myth is the equation of Indra’s body with the Soma sieve. The trickling of Soma drops through the orifices on the sides of the Soma sieve suggested the image of Soma pouring out of all the openings of Indra’s body.

(c) The ‘thousand holes’ on Indra’s body:

The RV often compares the flowing of the Soma juice into the receptacle with the flow of Soma into the stomach or heart of Indra:
—indrasya ṛārdī somadhanam ā viṣa (9.70.9).
“(O Soma) enter the Soma-vessel, the heart of Indra”

—indrasya endo jatharam ā pavasva (9.70.10).
“O Indu, flow into the stomach of Indra”.

—indrasya kukṣa pavate madintama (9.80.3).
“He (Soma) flow into the stomach for his food”.

We can see now that the constant comparison of Indra’s stomach, heart or body with the Soma vessel, a sieve with numerous fine holes on its sides, is the physical basis behind the post-Vedic myth of Indra’s body being marked with a thousand holes. According to later legends, Indra seduced Ahalyā, the wife of Gautama, and the sage laid upon Indra a curse which covered Indra’s body with a thousand orifices (eyes or yoni-s according to different accounts).

Harappan perforated ware

2.10. The identification of the lower vessel of the Harappan filter device as a perforated bowl naturally invites comparison with perforated pottery which is one of the most characteristic of the ceramic ware of the Indus Civilisation (Manchanda, A Study of the Harappan pottery, p. 141). The perforated vessels are mostly cylindrical jars (unlike the hemispherical bowl seen on the Harappan seals) of widely varying sizes (1.4 to 22 inches in height). The holes on the sides of the vessel are pierced from outside, leaving the inner edges ragged. There is generally a large hole at the bottom centre of the perforated jar. It has been suggested that the vessels were used as braziers or ritualistic incense-burners or lamp-shades etc. In West Asia, perforated vessels were used as strainers or colanders. But Manchanda thinks that such use “cannot be so unequivocally vouched for the tall cylindrical perforated vases of the Harappan type”. While perforated ware was known to several ancient cultures, its abundant use is a characteristic feature of the Indus Civilisation, perhaps in a ritualistic context as suggested by the perforated bowl seen in the Harappan Filter symbol.
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Perforated vessels in later tradition

2.11. A sacrificial vessel called sata used in ritual is mentioned in later Vedic literature and the ritual texts (Vedic Index II. 419). Śabarāśwāmin in his commentary on Mīmāṃsā Sūtra Bhaṣya (1.3.10) describes sata as ‘a wooden vessel round in shape and perforated with a hundred holes’ (sata iti darumayam pātram parimaṇḍalam satacchidram). He cites the term as an example of words of mleccha origin without etymology in Sanskrit. The description bears a striking resemblance to the pictorial representation of the hemispherical perforated bowl seen in the Harappan Filter symbol.

The Twin Soma vessels of the RV

2.12. The RV often refers to some Soma vessels in the dual number. According to the traditional interpretation, the twin bowls stand metaphorically for ‘heaven and earth’. We are concerned here with the physical basis of this description. Now that there is evidence that the filter device in the RV was an assembly of two vessels, one functioning as a strainer and the other as a sieve, it is instructive to re-examine the references to the twin Soma vessels in the RV.

(a) oṇyoḥ : This expression in the ablative dual form occurs thrice in the Ninth Maṇḍala and refers, in its primary sense, to some parts of the Soma filter (9.16.1; 65.11; 101.14). Griffith points out (in his note on 9.16.1) that the term signifies apparently an implement or a vessel, consisting of two pieces used in the preparation of the Soma juice. He translated the word as ‘Soma-press’ and Bhawe as ‘pressing boards’ (9.16.1) as they probably considered that the only twin objects involved in the Soma ritual were the two pressing boards. However there is no evidence for the existence of the pressing boards in the RV. In the light of the new evidence furnished by the Harappan Filter symbol we can interpret oṇi (dual) in its primary sense as the twin vessels (strainer and sieve). While the filter vessels support the flowing Soma, verse 9.65.11 reverses the situation for poetic surprise, and describes Soma Pavamāna as the supporter of the oṇi (dharitāram oṇyoḥ), literally the two (filter) vessels, but metaphorically ‘heaven and earth’.

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(b) camvoḥ: The use of the locative dual in the phrase camvoḥ sutaḥ, ‘pressed in the (two) camū–s’ (e.g. 9.36.1) has caused a problem in interpretation because Soma is not pressed in vessels but between stones. According to Hillebrandt (VM, I. 280), camvoḥ is probably one of the elliptical duals and denotes the mortar as well as the pestle at the same time. Bhawe has followed the traditional interpretation and translated the phrase camvoḥ sutaḥ as ‘pressed out on the (two) wooden boards’ (9.36.1). We may now consider the possibility that camu in the dual form stands for the twin vessels of the filter device as in the following verse:

maḥi samairac camvā samicī  
ubhe te asya vasunā nyṛṣte (3.55.20).

“He (Tvāṣṭar) united the (two) great Bowls that face each other; both of them being packed full with his treasure”.

The term camvā can be interpreted in its primary sense to stand for the twin vessels (of the filter device) which face each other as represented in the Harappan symbol. The expression camvoḥ sutaḥ can be understood to mean ‘pressed into the (two) vessels’.

(c) dhāmani: There is an interesting reference in the RV to the two abodes of Soma ‘which stand facing’ (the priests):

tabhyāṃ viśvasya rajasi ye pavamāna dhāmani  
pratīci soma thasthatuḥ (9.66.2).

“By means of those (two) abodes which stand facing (us), thou rulest over all, O Pavamāna Soma”.

The word dhāmani (in the dual) has been variously interpreted, as the two lunar halves of the month (by Venkaṭa Mādhava), as the stalk (amīṣu) and the juice (soma) (by sāyaṇa), as heaven and earth (by Ludwig) or as Soma, the deity and the juice (by Bhawe). None of these interpretations is in accordance with the specific requirement in the verse that the two forms should actually ‘stand facing’ (pratīci) the priests. We can now interpret dhāmani as the ‘Two Abodes’ of Soma, that is, the two prominent vessels of the filter apparatus (the strainer and the sieve) facing the priests during the ritual. Alternatively, if dhāman is taken to mean ‘form’ (rather
than 'abode'), the expression *dhamani* can also be interpreted to stand for the two most important forms of the Soma juice, namely *pavamāna* (the ‘flowing one’) and *indu* (the ‘drop’), both actually seen during the filtering ritual.

(d) *dhiṣaṇe*: *dhiṣaṇa* is also a Soma bowl and the word is often used in the dual as in the other instances noticed above to represent ‘heaven and earth’ as the ‘two great bowls’ which close upon each other at the horizon:

\[\text{samicine dhiṣaṇe vi škabhāyati (10.44.8).}\]

“He props apart the (two) Bowls (*dhiṣaṇa*) that face each other”.

It appears likely that like *camū*, *dhiṣaṇe* also in its primary sense refers to the two bowls (of the filter device) which stand apart but facing each other as depicted by the Harappan Filter symbol.

(e) Other references to Twin Vessels:

\[\text{vi yo mame yamyā saṃyati madaḥ (9.68.3)}\]

“(He) who, (as) the exhilarating juice, has traversed the united twins”.

In the context of the Soma ritual and the flow of Soma Pavamāna, the ‘twins’ (*yamyā*) which are ‘united’ (*saṃyati*) and which are ‘traversed’ (*mame*) by the ‘juice’ (*madaḥ*) refers, on the physical plane, to the twin vessels of the filter. In the next verse (9.68.4), the phrase *sa mātāra vicaran*, ‘he (Soma) wandering through (his) (two) mothers’ makes sense only when related to the twin filter vessels through which the juice flows. As in the case of the twin vessels discussed above, the traditional interpretation of ‘heaven’ and earth’ need not be excluded in these two cases also, but are to be regarded as metaphorical suggested by the twin bowls of the filter, the most prominent objects associated with the Soma ritual.

(f) *The Twin Stomachs of Indra*:

A rather curious physical characteristic of Indra alluded to many times in the *RV* is his possessing two stomachs:
a te sīncami kukṣyoḥ anu gātra vi dhavatu
grbhaya jihvāya madhu. (8.17.5)

"I pour it (Soma) down within thee (Indra), so through (thy) two stomachs, through (thy) body, let it flow; take with (thy) tongue the pleasant drink."

Śāyaṇa in his commentary on this hymn cites authority for the ancient myth of Indra’s twin stomachs. His alternative explanation that perhaps two halves or sides of one stomach are meant by the dual form kukṣyoḥ is however rendered improbable by the specific reference to the two stomachs of Indra (ubha kukṣi) in another hymn (10.86.14). The coursing of Soma through the filter and into the receptacle suggested to the poets the flow of Soma into the stomach of Indra. What then is more natural than that the twin vessels of the Soma Filter should give rise to the myth of the two stomachs of Indra?

The Three Filters of Soma
2.13. The RV mentions tri pavitra ‘three filters’ of Soma twice:

—tri sa pavitra hṛdy antar a dadhe (9.73.8).

“He (Soma) carries three filters inside his heart”.

sam tri pavitra vitatāny esy anv ekaṁ dhavasi pūyamānaḥ
(9.97.55).

“Thou comest unto the three filters stretched out; and runnest through each clarified”.

Veṅkaṭa Mādhava and Śāyaṇa identify the three filters as Agni, Vāyu and Śūrya, the three purifying deities. Śāyaṇa also suggests that these filters are different from the strainer made of sheep wool. Bhawe (SH, III.101) has proposed that the doctrine of the three pavitras refers to the three forms of Soma viz., heavenly, mid-regional and earthly.

I believe we can identify the physical basis for the three filters of Soma when we read the relevant passages in the RV keeping in view the construction of the Harappan Filter in which the liquid can be seen to pass through three distinct stages in the course of its downward flow:

...
(i) Through the upper vessel corresponding to the sheep wool strainer (pavitra) of the RV;

(ii) Through mid-air in the intervening open space between the two filter vessels, corresponding to Soma's passage through antarikṣa (mid-region) or Vayu's place (mid-air) as often referred to in the RV;

(iii) Through the lower perforated bowl corresponding to the fine Soma sieve (aṇva or aṇvi) of the RV, before finally emerging as drops of Soma (indu).

This sequence is clearly referred to in the RV:

somaḥ punano arṣati sahasradhāro aty avih
vayor indrasya niskṛtim (9.13.1).

"Soma, being purified, flows thousand-streamed, beyond the sheep (wool) (strainer),
to Vayu's and Indra's place".

The sequence becomes clear when we understand 'Vāyu's place' to be the mid-air (between the strainer and the sieve) and Indra's place to be the receptacle of Soma, often identified with Indra's heart or stomach. Again Soma is described,

antarikṣena rārajat (9.5.2).

"(Soma) shining through the mid-region"

Sāyaṇa's gloss dranakalasam prati gacchati makes it clear that the reference to the mid-region here is to the space between the strainer and the receptacle. From the naturalistic point of view, the concept of the three filters is based on the successive filtering action of

(i) the sheep wool strainer which removes the solid matter;

(ii) the passage through the air (in between the two vessels) which purifies the stream; and

(iii) the fine sieve which further filters off the remaining impurities before the pure drops of Soma emerge through the orifices on the sides of the vessel.
C. The Flow (pavamāna)

2.14. The presiding deity of the Ninth Maṇḍala of the RV is Soma in the form of Pavamāna. The word pavamāna means ‘the flowing one’. The supreme moment of the Soma ritual is reached when the juice starts flowing through the filter. The flow of Soma is “the all-absorbing theme of the Soma-poetry” (Bhawe). The flow is referred to virtually in every verse of the Ninth Maṇḍala and is extolled with endlessly varying imagery invoking movement of waters in varied forms, as rains falling, rivers flowing, rivers streaming or waves billowing. The Soma verses are a veritable cornucopia of ‘flow’ words, verbs describing movement, adjectives emphasising swiftness, and nouns providing similes of speeding objects like birds, race horses or chariots. As Bhawe points out, the Ṛgvedic poets appear to take an almost sensuous pleasure in the running of Soma Pavamāna.

2.15. The flow of Soma as pavamāna is the first and most important clue I have to identify the function of the upper vessel of the Harappan cult object as a strainer. The series of parallel lines placed closely together and drawn vertically or in zigzag fashion through the length of the upper vessel depict pictorially the flowing of a liquid and correspond to the imagery of Soma as pavamāna in the RV.

2.16. The flow of Soma is also frequently described as dhāra, ‘continuous stream’. The expression is often used to depict multiple streams as in sata-dhāraḥ, ‘hundred streams’ (9.86.27), or sahasra-dhāraḥ ‘thousand-streamed’ (9.13.1). The thin stream of Soma is described as a ‘thread’ (tantu) stretched out and extending to the highest place (9.22.6). The streams passing through the filter are also described as asaścataḥ, ‘several, separate’ (9.57.1; 62.28 etc). Bhawe’s comment (SH III.15) is apt: “Every observer of the Indian monsoon knows that the rain falls in continuous yet separate thin streams. Soma also flows in the same way”. The pictorial depiction of flow by means of a series of thin vertical or slanted parallel lines drawn across the upper vessel of the Harappan cult object fits in exactly with these descriptions in the RV.
Pavamāna depicted as waves:

2.17. Soma Pavamāna is often compared to waves in the RV:

*sindhor ivormiḥ pavamāno arṣati.* (9.80.5)

“Pavamāna flows like the wave of a river”.

*pra somasya pavamānasya īrmayaḥ
indrasya yanti jāṭharam supeśaḥ.* (9.81.1)

“The waves of Soma Pavamāna advance into the belly of Indra.”

This imagery has an exact pictorial parallel in the depiction of wave-like lines on the lower bowl of the Harappan Filter symbol to indicate the liquid contents of the vessel (e.g. Fig. 6G from *EH* 3).

2.18. The word *hvaramśi* occurs thrice in the Soma verses (9.3.2; 63.4; 106.13) and has been variously rendered as ‘declivities’ (Benfey), ‘plaited cloth’ (Zimmer), ‘winding ways’ or ‘twisted obstacles’ (Griffith) or ‘impediments’ (Bhawe). Bhawe considers that the term stands for the obstruction caused by the hairs of the strainer. While this meaning is not unlikely, it is more apt in the context of the flow of Soma to translate the word as ‘diverse or winding ways’. (The root meaning of *hvar* is ‘to deviate or diverge from the right line, to go deviously’; Monier Williams). The serpentine or winding paths of the Soma juice flowing across the sheep wool strainer correspond to the wavy, zigzag flow lines on the upper vessel of the Harappan Filter symbol.

D. The Drop (indu)

2.19. While *pavamāna* (the ‘flowing one’) is regarded as the most important aspect of Soma, *indu* (the ‘bright drop’) is the most frequently applied epithet to the juice. Another term for ‘drop’ in *drapsa* which is used less often than *indu*. In their naturalistic aspects, *pavamāna* is the *flowing* stream of Soma, and *indu* is the *drop* coming out of the sieve. Both are deified and constitute together the core of the Soma ritual. Griswold put it well when
he wrote, “As agni’s theophanic moment is when the ghee-fed altar-flame blazes up, so the theophanic moment of Soma is when the round drops fall from the sieve into the wooden vat below” (Religion of the RV, p. 230). Even as the ‘flow’ of Soma as pavamāna was the first clue to identify the flow lines drawn through the upper vessel, the second clue is furnished by the ‘drops’ of Soma (indu) which correspond to the small circles or droplets surrounding the lower vessel and indicating its function as a sieve. The representations of the ‘flow’ through the strainer and the ‘drops’ in and around the sieve appear to symbolise the Sacred Elements of the Harappan ritual and correspond exactly to the concepts of pavamāna and indu in the RV respectively.

2.20. The sealing from Harappa (EH 322 ; duplicates in IS 5243, 5244) illustrated here in Fig. 5 is of exceptional importance in confirming my interpretation. This sealing is a frieze of alternate representations of the filter device and the falling drops (small circles arranged in a vertical column). This motif of ‘Filter and the Falling Drops’ can now be interpreted as depicting the Harappan equivalents of pavitra and indu of the RV.

**Pictorial parallels for metaphors of Indu**

2.21. I shall now present some cases where the pictorial parallels from the Harappan seals help us to understand the metaphors of Indu in the RV which have hitherto remained obscure

(a) **Embrace of Soma by Indu**

One of the Soma verses refers to the embracing of Soma by Indu:

yah somaḥ kalaśeṣv a antaḥ pavitra a hitaḥ
tam induḥ pari ṣasvaje (9.12.5).

“The Soma who is placed in the pitchers (and) in the strainer; him the drop has embraced”. (Bhawe)

Commenting on this verse, Bhawe (SH, I.63) points out the ‘peculiar distinction’ between soma and indu here and draws attention to Śāyānā’s gloss according to which Indu is the god who embraces Soma, the physical juice. When we look at the Harappan
seals (e.g. MIC 3, 15, 18) showing the Filter with round drops of liquid surrounding the lower bowl, we realise what the poet meant when he sang of indu, the ‘drop’ embracing soma, the ‘pressed juice’ within the bowl!

(b) *The ‘shining knots’ of Soma*:

The following Soma verse has caused considerable problems in interpretation mainly because the physical phenomenon alluded to in it has not been understood so far:

\[ \text{eśa vasūni pibdanā paruṣā yayīvān ati; ava śādesu gacchati} \]

(9.15.6)

“This (Soma) having gone beyond the shining (crushed) twig-knots sticking to (him), goes down into the pitchers.” (Bhawe)

The problem has been to identify what are the shining (vasūni) knots (paruṣā) sticking to (pibdana) Soma’s body (or the sieve). Here again the Harappan seals help us to understand the poetic metaphor with a precise pictorial parallel. As described earlier several seals depict drops of liquid in the process of emerging out of the orifices of the sieve (e.g. MIC 2,36). These hemispherical drops, still sticking to the sides of the bowl and glistening in the sunlight, create the illusion of shining knots, knobs or studs on the sides of the sieve (or, metaphorically the body of Soma). On the basis of this parallel, we can now attempt a more meaningful translation of this verse:

“This (Soma) having gone beyond the shining knots (lit., drops) sticking to (the sieve), goes down into the pitchers.”

(c) *The ‘thousand knobs’ of Soma*:

Two nearly identical verses refer to Soma as sahasrabhrṣṭi, ‘(he) with a thousand studs’ (9.83.5; 86.40). One of the verses is given here:

\[ \text{rājā pavitraratho vājm āruhāḥ}
\text{sahasrabhrṣṭir jayasi śravo bṛhat} (9.83.5). \]

“King, on thy chariot sieve thou goest upto war, and with a thousand weapons (lit. sharp points) winnest lofty fame”, (Griffith)
The word \textit{bhṛṣṭi} means, ‘spike, point, top, corner, edge’ etc., (Monier Williams). The metaphor of \textit{bhṛṣṭi} here is very similar to the one of \textit{paruṣā}, ‘knot’, noticed earlier. Some of the Harappan seals (e.g. \textit{MIC} 9, 18) depict the lower bowl with ‘bosses’ covering the whole surface giving the vessel the appearance of ‘knobbed’ ware. Mackay drew attention to this feature, but Marshall pointed out that hemispherical bowls made of knobbed ware were not found at Mohenjodaro (\textit{MIC}, p. 383). Manchanda (\textit{A Study of the Harappan Pottery}, p. 124) has surveyed the occurrence of knobbed ware at Mohenjodaro and Harappa and points out that the specimens are all very small jars with narrow mouths, and appear to be ‘luxury ware’ for keeping ‘expensive liquids’. As we have seen there is clear evidence that the lower hemispherical bowl of the Harappan filter device was a perforated vessel and could not have been made of knobbed ware. I interpret the round globular projections as a pictorial rendering of the concept that the bowl is filled with ‘drops’, as it were, rather than liquid in the mass, an idea which accords with the \textit{Ṛgvedic} imagery of \textit{Soma} as \textit{indavaḥ}, ‘drops’. It is however interesting that the ‘drops’ did suggest the imagery of ‘knobs’ even to the \textit{Ṛgvedic} poets as seen in the verse cited here. The ‘thousand knobs’ refer to the drops formed on the Soma-sieve on the one hand, and the ‘thousand-spiked weapon’ of king Soma on the chariot-sieve, on the other.

\textbf{(d) Soma Sieve and the Udder :}

The sight of Soma coming out of the sieve in drops or as thin sharp jets suggested to the \textit{Vedic} poets the analogy of milk issuing out of the udder:

\begin{verbatim}
upāṣṭhayā mātaram annam aitṛta
   tigmam apaśyad abhi somam ādaḥ. (3.48.3)

“Approaching his mother, he (Indra) cries for food; he looks towards the sharp Soma as towards the udder.”
\end{verbatim}

\begin{verbatim}
dūhana ādar divyam madhu
   priyat pratnām sadhastham āsāt. (9.107.5)

“Milking the divine udder for dear meath he hath sat in his ancient seat.”
\end{verbatim}
The lower vessel of the Harappan Filter symbol with drops or thin sharp jets of liquid coming out of the orifices does resemble an udder with milk issuing from it. (cf. Fig. 6E & F from MIC 2 & 41. See also the signs 332–335 and 337 in Fig. 8 and the discussion on their significance in section III below.)

E. The Bull (vṛṣan)

2.22. Soma is frequently compared to a bull (uksan, vṛṣan, vṛṣabha) in the RV. In the following verses there is a characteristic word-play on vṛṣan which is unfortunately lost in translation:

\[
\begin{align*}
vṛṣa soma dyumān asi & vṛṣa deva vṛṣavrataḥ \\
vṛṣa dharmanī dadiše & (9.64.1). \\
vṛṣas te vṛṣyam śavo vṛṣa vanam vṛṣa madah & satyam vṛṣan vṛṣed asi (9.64.2). \\
O Soma, bull, (thou) art full of lustre; \\
O god, bull, (thou) art possessed of manly wonder-deeds; \\
(As) a bull thou holdest sacred activities; \\
The strength of thine, the bull, is manly; \\
Strength-giving (is) thy worship, manly thy exhilaration; \\
O virile one, thou art indeed a Bull. (Adapted from Bhave.)
\end{align*}
\]

Soma as the bull has far-gazing eyes (vicakṣana) and sharp horns (tigmaśṛṅga). He is fond of sharpening his horns (śṛṅge sīśano) and bellowing loudly (ruvati).

\[
\begin{align*}
ruvati bhimo vṛṣabhas taviṣyayā \\
śṛṅge sīśano harini vicakṣaṇah & (9.70.7).
\end{align*}
\]

“He (Soma) bellows, terrifying bull, with might, sharpening his shining horns, gazing afar” (Renou).

2.23. It is somewhat strange that Soma, the juice extracted from a plant, should be so often compared with the bull, with which it has little in common. It is probable that the traits of Indra as a manly warrior stand transferred to Soma. When we turn to the Harappan seals we find the same association represented by the almost constant pairing of the unicorn and the Sacred Filter. The wide staring eye and the sharp horn of the unicorn so prominently depicted on the Harappan seals recall at once the
epithets vicakṣana and tigmāṣṭhēṅa applied to Soma, the bull in the RV. As pointed out in the earlier section, the Filter seldom appears with other animals on the Harappan seals. It is therefore likely that the unicorn-bull (or the deity represented by the animal) occupied the same special position in the Harappan religion in respect of the Sacred Filter ritual as Indra did in respect of the Soma ritual in the religion of the Ṛgveda.

Sacred Filter Symbol is a Standard:

2.24. It bears repetition that what we see on the Unicorn seals is not the Sacred Filter per se but its symbolic representation in the form of a Standard. This is obvious from the presence of the long, slender stem below the lower vessel, which would be out of place in a real life-size filter. We have direct pictorial evidence that the Harappans carried the Sacred Filter aloft as a portable hand-held standard used in ceremonial processions (Figs. 3 & 4). Thus the Harappan cult object seen on the Unicorn seals is a standard with the Sacred Filter symbol as its capital.

2.25. The Harappan sealing depicting a procession with ceremonial standards sheds new light on the significance of the oft-repeated phrase nṛbhīr yataḥ ('held in hand by the priests') in the Ninth Maṇḍala of the RV:

sidāṁ indrasya jathare kānikradan
nṛbhīr yataḥ sūryam ārohayo divi. (9.86.22)

"Lodged in the belly of Indra, roaring with vigour, held in hand by the officiants, thou has made the sun to mount the sky."

indrasya soma pātave nṛbhīr yataḥ
svāyudho madintama. (9.108.15)

"For Indra that he may drink, clarify thou thyself, O Soma, held in hand by the Lords, well-armed, inebriating."

(Tr. by Wasson after Renou.)

Bhawe (SH, I.36-37) notes that the phrase nṛbhīr yataḥ is a special characteristic of Soma and that while the phrase itself offers no clue to its interpretation, its association in many passages
is with the Soma vessel. The reference as judged from this context is therefore to the carrying of the Soma vessel and not to the pressing of the Soma plant. There are also other specific references to standards in the RV. For example:

brahma\=nas tv\=a st\=ak\=ra\=ta \=ud\=va\=\=nsam i\=va ye\=mi\=re. (1.10.1)

"The priests have raised thee high, O Satakratu, like a bamboo (pole)."

2.26. In a recent study, U.P. Thaplyal (The Dhvaja, Standards and Flags of India: A study, 1983) has pointed out that in the earliest usage the term dhvaja (standard) signified a staff (ya\=sti) surmounted by a sacred motif (ketu) and often adorned with some drapery (patta). His identification of the cult object on the Unicorn seals as "the Standard of the Indus Valley people" and its comparison with similar ceremonial or ritual standards of ancient Egypt are essentially correct. As the present study has shown, the sacred motif forming the capital of the Harappan Standard can now be identified as a Sacred Filter, the prototype of the soma pavitra of the RV. The identification also suggests an interesting parallelism with the standard of Indra (indradhvaja) mentioned in the post-Vedic literature.

III. EVIDENCE FOR SOMA-LIKE RITUAL IN THE INDUS SCRIPT

3.1. The very high frequency of the Sacred Filter symbol and the special place accorded to it on the unicorn seals indicate that it represents one of the most important, if not the central cult of the Harappan religion. It is therefore quite likely that inscriptions in the Indus Script may have references to this ritual. The Indus Script has not yet been deciphered; but it may be possible to identify the ideograms connected with the ritual by utilising the pictorial clues furnished by the signs themselves and the evidence of the RV describing a similar ritual. In the light of the new evidence provided by the Sacred Filter symbol, I have provisionally identified fifteen signs in the Indus Script (Fig. 8) as dealing with a Soma-like cult of the Harappan religion. The signs appear to cover all the stages of the ritual as described in the RV, namely:
(a) Pressing in a mortar;
(b) Flow of the juice (through a strainer);
(c) Filtering through a sieve;
(d) Offering to the gods in sacrifice.

The evidence from the Indus Script thus supplements the information from the Sacred Filter symbol which depicts only the most important aspect of the ritual.

**Mortar in the Soma Ritual in the RV:**

3.2. The common method of extracting the Soma juice in the RV was by crushing the stalks between ‘stones’ (*adri, gravan*) which were placed on ox-hide or held in hand by the officiants. The ‘stones’ are not described further; but there are reasons to believe that the most ancient method of extraction of the juice was by using mortar and pestle. The ancient Avestan and the modern Parsi rituals employ only a mortar to extract the Haoma juice proving that this custom goes back to the Indo–Iranian period. The use of the mortar (*ulūkhala*) is specifically mentioned only in a single hymn in the *RV* (1.28) with the following refrain in the first four verses:

*uliikhalasutānam aved v indra jalgulah.*

“O Indra, drink with eager thirst the droppings which the mortar sheds”. (Griffith)

This hymn from the First Manḍala may be a late one; but it appears to preserve an archaic tradition as seen from the unique references in it to the pestle being worked by a woman (*nāri*), who otherwise takes no part in the Soma ritual, and to the mortar as operating ‘in every house’ (*grhe grhe*). Hillebrandt (*VM*, 1.272) infers from this evidence that the Soma ritual was in the earliest period a domestic or household observance and that extraction by the mortar was the original method. Hillebrandt also cites the study of S.G. Oliphant (*Studies in honor of Maurice Bloomfield*, 1920, p. 325) according to whom the term *gravan* even in the Vedas stood for mortar and pestle, while the term *adri* meant ‘press stones’ of the type described in the later ritual texts.
Hillebrandt adds (VM, I, 451, n. 21) that the term adri (when used in the dual) could also denote stone mortar and pestle. According to Griswold (Religion of the RV, p. 226) there is nothing in the description of the press-stones which would not be appropriate for mortar and pestle except the multiplicity in number. The idea of duality is so inherent in the act of pressing with any implement that grammatical number is not very material to decide the issue. The use of singular or plural could well be meant to indicate the mortar or the presence of large numbers of the pressing implements. My suggestion is that just as vana, ‘wood’, and vanya, ‘wooden’ are used in the Soma verses in a generic sense to denote wooden vessels, even so the ‘stone’ words (adri, grāvan) could have been used generically for the stone mortar and pestle. It is also likely that the Soma mortar and pestle were small stone implements (somewhat like the ones used by the modern apothecary) judging from the fact that they were ‘held in hand’ (grāva–hastāsah; 1.15.7).

‘Mortar’ signs in the Indus Script (IS 34, 335–337)

3.3. Sign IS 336 is a self-evident pictogram depicting mortar and pestle. It is one of the dozen most frequent signs in the Indus Script occurring 236 times (IS : Concordance, pp. 585–95). The sign is found engraved singly on the boss at the back of a unicorn seal (MIC 18) indicating its character as a meaningful word–sign by itself. The identification of the cult object symbol on the unicorn seals as a Sacred Filter makes it likely that the ‘mortar’ sign is connected with the ritual pressing and extraction of the juice as in the Soma sacrifice of the RV. The sign may stand for ‘mortar and pestle’ or ‘pressing’ or ‘presser’ or even the ‘pressed (juice)’.

3.4. The ‘mortar’ sign (IS 336) occurs as two main variants (IS : List of sign variants, p. 791). In one of them the pestle appears as a straight staff of uniform thickness (e.g. MIC 30); in the other, the lower end has a bulbous attachment as in a churning staff (e.g. MIC 38). This unusual combination has an exact parallel in a verse in the RV, which associates the mortar with a churning staff:

\[
\text{yatra mantham vi badhnate rasminy amitavā iva}
\]
\[
\text{ulūkhalaṣutānāṁ aved v indra jalgulaḥ (1.28.4).}
\]
"Where, as with reins to guide a horse,
they bind the churning-staff with chords;
O Indra, drink with eager thirst
the droppings which the mortar sheds." (Griffith)

Several explanations have been offered for this apparently ill-fitting combination. According to Oldenberg (RV, Noten, I.24, note 2) the combination refers to the production of fire as an integral part of the Soma ritual. Hillebrandt (VM, I.274) has suggested that the twirling stick and the mortar formed a single apparatus, a kind of 'manual grinder' for crushing Soma. Griswold (The Religion of the RV, p. 223, n. 5) refers to the Parsi practice of turning round the pestle in the mortar to extract the juice further, and suggests, by analogy, that after Soma was crushed, the whole was churned by the 'regular Indian twirling apparatus' the better to secure the juice. It is indeed remarkable that the Indus Sign (IS.336) offers an exact pictorial parallel to this unusual combination proving that this sign depicts no ordinary mortar and pestle (such as the one used for pounding corn).

3.5. One of the verses in the RV refers to the pressing stones as 'some times pierced and other times not pierced with holes' (tṛdila atrdilasāḥ; 10.94.11). The same hymn refers in another line to a 'hole' (ākhara) in the stones (10.94.5). Hillebrandt (VM, I.271) wondered whether occasionally holes were made in the stones 'in order to tie them to straps and thus to hold them better'. The true explanation becomes clear from the pictorial parallels offered by two Indus signs of the 'mortar' group (IS 335 and 337). It appears now from these signs that the Soma mortar had perhaps a variant form combining the functions of a mortar and a sieve in one vessel. The sign IS 337 depicts a mortar (either with a pestle or with a churning staff) perforated at the bottom with five holes through which the liquid spurts out in thin jets. (IS : List of Sign Variants, p. 791). Another sign (IS 335) depicts a mortar with a long stem at the base and streams of liquid spurting out as thin jets through two holes at the bottom of the vessel on either side of the stem. The sign appears to depict a mortar-cum-sieve to be held in hand, as a standard probably in a symbolic ritual. (cf. the hand-held standards depicted on the sealings MIC CXVI : 5, 8 and EH 309). The anthropomorphic sign IS 34 showing a
person holding a mortar and pestle in his hand may represent an officiant connected with the ritual of pressing.

The 'Flow' signs (IS. 119–121)

3.6. Signs IS 120 and 121 are composed respectively of 9 or 12 short parallel strokes arranged in three tiers. Sign IS 119 has varying number of strokes (from 6 to 10) in different variants. (IS: List of sign variants, p. 787). These signs have sometimes been regarded as 'numerals', from which however they are clearly distinguishable by the following characteristics:

(i) The numerals have invariably vertical strokes, while these signs have characteristic variants with zigzag lines;
(ii) Sign 119 with variable number of strokes cannot represent a numeral;
(iii) Sign 121 occurs sometimes doubled unlike the numeral signs;
(iv) The present group of signs does not occur in numerical sequences.

G. R. Hunter (1934 : p. 98) while concluding that these signs are not numerical also pointed out their close similarity with the flow lines depicted on the upper vessel of the cult object symbol on the unicorn seals (Ibid, pl. I). Hunter regarded the signs IS 120 and 121 as simple variants. I consider that all the three signs of this group (IS 119–121) are most likely to be simple variants of a single ideogram representing the 'flow' of a liquid. In other words, they represent in the Indus Script the same concept of 'flow' as depicted by similar lines on the upper vessel (strainer) of the Sacred Filter symbol on the unicorn seals.

The 'Sieve' signs (IS 332 to 334)

3.7. The sign IS 332 depicts a hemispherical bowl with a perforated bottom with four of five holes through which a liquid issues in jets. (IS : List of variants, p. 792). The vessel is therefore a sieve exactly like the one forming the lower half of the Sacred Filter symbol on the unicorn seals. Compare this sign especially with the lower bowl depicted on the seal MIC 41 (reproduced by G. R. Hunter, 1934, pl. I, No. 322), showing the spurting of liquid by thin lines radiating from the bottom of the vessel. The next
sign (IS. 333) is an even closer approximation to the lower perforated bowl of the Filter device since the long stem attached to the bowl at the base is also shown along with streams of liquid spurting out as thin jets from two holes at the bottom of the vessel on either side of the stem. The stem served the purpose of holding the perforated bowl in hand or carrying it aloft as a standard in procession, as suggested by the hand-held filter symbols on some sealings (MIC, CXVI: 5, 8 and EH 309). Compare also the closely analogous sign IS 335 depicting a mortar-cum-sieve with a stem. The third sign in the 'sieve' group (IS 334) is a modification of the 'sieve with stem' sign (IS 333) with the addition of a mark above which probably has the meaning 'celestial' or 'divine'.

The 'offering' signs (IS 32, 44-46, 328):

3.8. The sign IS 328 depicts a small vessel resembling the ordinary drinking cup (IS, List of sign variants, p. 790). We can infer that the cup stands for a ritual offering from the following anthropomorphic 'cup-bearer' signs:

IS 32: A standing adorant holding a cup;
IS 44: A dancing adorant (shaman?) holding a cup;
IS 45: A kneeling adorant holding a cup;
IS 46: A kneeling adorant (female?) with bangles on one arm holding a cup.

It is also instructive to compare the frequent texts from Harappa consisting of the 'cup' sign and one to four long strokes preceding it (IS : concordance, pp. 565-82) with the unique text (EH 372) in which the simple 'cup' sign is replaced by the sign of the kneeling female (?) adorant with the cup (IS. 46), there by indicating that the simple 'cup' sign itself stands for 'offering' as well as 'the person who makes the offering (worshipper of officiant)'. The signs with the kneeling cup-bearers (IS 45, 46) may also be compared with the kneeling priest depicted on a seal (FEM 430) and with the kneeling adorants on a sealing (MIC, CXVI: 29).

IV. IMPLICATIONS OF THE PARALLELISM

Is the Harappan Culture Indo-Aryan?

4.1. A new theory has been put forward in this paper that the Harappan religion had a central cult or ritual closely resembling
The Soma sacrifice of the *RV*. The implications of the parallelism are far-reaching. The first question that will arise obviously is: can we not now consider that the Harappans were none other than the Vedic Aryans, as that would most naturally account for the resemblances between the Harappan pictorial motifs and the Soma ritual as described in the *RV*? We cannot however consider this question in isolation, but take into account other relevant circumstances. The Filter symbol occurs from the lowest levels at Harappa as pointed out by Vats. The date of the Aryan settlement of the Indo-Iranian regions is unknown, but unlikely to have been so early as to be contemporary with the beginnings of the Indus Civilization (c. 2800 B.C.). The *RV* describes many other features of the Aryan society, such as for example the light horse-drawn chariot with spoked wheels, which is not represented in the Harappan art. Soma is often compared in the *RV* to a speeding horse; but the horse is not among the many animals featured on the Harappan seals and sealings. On the whole it is still difficult to associate the largely pastoral way of life of the Vedic Aryans with the urban polity of the Indus Civilization. It is more likely that Soma (Avestan Haoma) was one of the elements taken over from the earlier Harappan culture and assimilated by the Indo-Iranians. In this context we may briefly consider Gordon Wasson’s theory regarding the identity of the Soma plant as it has a vital bearing on the problem considered here.

**Wasson’s Identification of Soma**

4.2. It is well known that the use of the original Soma was discontinued even by the time of the later Vedic Age and the knowledge of its real identity was totally lost. The later descriptions of the plant are based on substitutes having little or no resemblance with the original Soma. During the last two centuries of modern scholarship several attempts were made to identify the original Soma plant, but without success because, as it now turns out, no trained botanist investigated the problem. Gordon Wasson, a gifted amateur botanist achieved a major breakthrough in 1968 when he published his finding that Soma was a psychotropic mushroom, *Amanita Muscaria* or the fly-agaric (*Soma: Divine Mushroom of Immortality*, New York, 1968). Wasson marshalled evidence from the *RV* itself to show that the original Soma plant
had 'neither seed, nor blossom, nor leaf, nor root', and therefore not a chlorophyll-bearing plant. It grew only on the mountains, but there was no record of its cultivation even in the highlands. It had a 'head' and a fleshy stalk, was red in colour and yielded a tawny yellow extract. The juice could not have been alcoholic as it was pressed thrice a day and consumed immediately; but it was an inebriant which sent those consuming it into divine raptures, an indication that the juice was hallucinogenic. The evidence clearly points out to the fly-agaric as the original Soma plant. Wasson's brilliant discovery, based on cogent and irrefutably reasoning, holds the field, even though one may not agree with all the details of his theory, for example, his interpretation of the Two Forms of Soma or the Three Filters, involving the drinking of urine as psychotropic metabolite. I wish to clarify that I am not disputing Wasson's well-documented finding that the practice of urine-drinking went along with the consumption of fly-agaric. I am on the narrower ground that the two concepts of the RV mentioned above can be interpreted more plausibly, as I have attempted here, with reference to the filter device in the light of the new evidence from the Harappan Filter symbol.

**Fly-agaric and the Uralic Tribes**

4.3. Gordon Wasson has pointed out that the fly-agaric is a mycorrhizal mushroom growing only in association with the birch trees and occasionally with the pines and firs, which are found at sea-level in Northern Eurasia, but only at great heights in the mountains south of the Oxus. The fly-agaric had long been the Sacred Element in the Shamanic rites of the Uralic tribes of Northern Eurasia. These tribes must have been familiar with the use of the fly-agaric from at least 6000 B.C., judging from the linguistic evidence connecting the words for 'mushroom' and 'inebriation' in the Uralic languages. Wasson has suggested that as there is no evidence for the presence of Soma in the undivided Indo-European Period, the Aryans must have acquired the fly-agaric from the Uralic tribes with whom they lived in long and intimate contact in Northern Eurasia before moving down to the Iranian plateau and into India sometime in the second Millennium B.C.

4.4. The new evidence for the presence of a Soma-like cult with a Filter ritual in the Indus Valley during the Harappan Age Indicates
however that the Aryans did not bring the Soma cult with them but took it over from the Harappans. The Harappans in turn probably acquired the fly-agaric habit from Uralic-speaking North Eurasian tribes at a much earlier period in history. The recent discoveries of seals with legends in the Indus Script at Shortugai on the south plains of the Oxus in North-east Afghanistan and at Altin Depe in Soviet Central Asia strengthen such a possibility.

Uralian and Dravidian Inter-connection

4.5. Burrow (Dravidian Studies IV) compared the most primitive vocabulary relating to parts of the human body in the Uralian and Dravidian languages and concluded: “It would not be possible to produce between any two languages the same amount of detailed comparisons as can be made between Dravidian and Uralian without giving reason to believe that those languages were themselves related”. Andronov investigated the comparative morphology of the languages (Proceedings of the Second International Seminar on Tamil Studies, 1968, vol. I, p. 267) and observed: “If double and triple coincidences in the morphology of Dravidian and Uralian pointed out above are not accidental—and, apparently, we have reasons to think they are not—they must testify to some remote relationship between the two families (as simultaneous borrowing of two or three inflexional suffixes in each case looks improbable)”. Andronov concluded that the remote Dravidian–Uralian ties should be regarded as a vestige of their pre-historic connection rather than as genetic relationship in the normal linguistic sense. The ancient inter-relationship between the Uralian and the Dravidian makes it probable that the cult of Soma, Wasson’s ‘Divine Mushroom of Immortality’, was passed on by the Uralians to the Dravidians long before the advent of the Aryans into the Indo–Iranian regions.

Soma Ritual from the Harappan Substratum

4.6. The evidence discussed above leads to the conclusion that the Soma (Haoma) rituals of the Indo–Iranian religions are based on a pre-Aryan Harappan substratum and that this is the reason for the remarkable resemblances between the Harappan symbolism of the Sacred Filter and the Soma ritual as described in the Rigveda.
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**B. The Rgveda (RV):**


C. Uralian–Dravidian Studies


[Mode of Citation]: *Harappan Inscribed Objects*—The numbers immediately following MIC, FEM, EH and IS refer to the continuous serial numbers of inscribed objects as given in these publications. In other cases, plates (pl.), pages (pp.) or illustrations (ill.) in the source publications are cited; *Signs of the Indus Script*—Numbers in one to three digits immediately following IS refer to signs. (See IS: Sign List, pp. 32–35); *Hymns from the RV*—Relevant passages alone are cited from the samhitā text, giving Maṇḍala, Sūkta and mantra numbers separated by dots (e.g 9.70.7)].
DISCUSSION

A. L Basham (Canberra): I wonder if Dr. Mahadevan is aware of the interpretation of this object given by an early anthropologist in Anthropos around the time of the Second World War. In that article he concludes that it is a fertility Vedic object, on the basis of some tribal practices of the Bhils. Another thing I would like to add is that a scholar of the Australian National University, who has some knowledge of sheep, dipped various liquids into a strainer made of sheep wool and that the liquid did actually penetrate the wool just as is described in your paper. But he said it would take some time for that to happen.

Y. Ikari (Kyoto): Your cult object does not look like the instrument used in the Soma sacrifice of the Vedic ritual. Especially the lower bowl with perforated holes does not fit in with our idea of the filter derived from the ritual texts. Without a receptacle, the Soma juice will be wasted on the ground.

I. Mahadevan: I mentioned in the paper that what we have is only the pictorial hand-held model depicted on the seal.

K. V. Sarma: It should be possible to find an object like that on the seal in the collection of sacrificial materials at the Vaidika Sansodhana Mandalam in Poona.

I. Mahadevan: I have seen some of the illustrations of the wooden implements recreated by the VSM in Poona. But one problem is that their reconstruction is based upon the later Šrauta ritual. In my view, the Šrauta rituals differ very widely from the practices in the Rgvedic times, as we see in the cases of the Adhisavanaphalaka and the Daśapavitra which are used in the Šrauta, but do not appear in the Rgveda.

S. Sahai (Bodh-Gaya): First, I think your whole argument is based on the assumption that the Indus people were doing the Soma ritual. But we do not know exactly that they were doing it. Second, you say that the bull is a steer. But if it is a steer, it is being killed or something like that [so that it cannot be an enjoyer of Soma, as is Indra, with whom the bull is identified in your paper].

I. Mahadevan: I have never used the word ‘Soma’ in the Harappan context; I have used only the word ‘Soma-like’.
My point is that it is inconceivable to postulate two filter cults, totally unconnected and accidentally succeeding one another, in the history of Indian culture. This is why I project the Soma-like fluid back into the Harappan culture. [The answer to the second question absent.]

R. Thapar: I am a little worried about where goes the stuff that comes out of the hole. There must be something to capture and keep it with; Soma being a very expensive juice. (laughter). Also there must be someone who presses it inside the picture. My other question is about the animal you refer to as bull. Compared with the descriptions that were given in the Rgveda such as “the bull with staring eyes”, etc., it just doesn’t look like a bull. The Harappan bull is unmistakably a bull and this animal on the seal is certainly some kind of a mythological animal. This is why you have an animal like that with a single horn in association with this cult.

I. Mahadevan: As regards the first question, I answer that the Harappan seals are not motion pictures. They do not show the entire ritual in all the aspects. The filter is depicted without a pressing instrument or a pitcher, if any, only because it is the central object of the cult. Moreover the seals only depict a portable hand-held standard with the symbol of the Sacred Filter. And I have connected it with the entire Soma ritual on the basis of a number of signs in the scripts on other seals. As regards the unicorn bull, I am not able to identify it at all. All that I know is the intriguing fact that the bull is the most common epithet of Soma in the Rgveda. And here you have in apparently another culture not only a filter of Soma but a bull before it. Is it a mere coincidence? Since this particular filter is not placed before any other animal, with a few exceptions, it seems to be an offering to a deity, as is ṛṣabha or vrṣan in the Rgveda.

K. V. Ramesh: How is the possibility of the other horn hidden by one horn?

I. Mahadevan: Because I said that it is not a unicorn, the other horn is hidden behind one horn. It is only the result of a perspective. And this is proved by the fact that the animal is depicted with two horns on four seals. So there is no question that the unicorn is only an apparent form.
S. H. Ritti: I think you are reading the Soma cult into the very seals.

I. Mahadevan: Shall I say proto-Soma cult or a Soma-like cult, since I do not know the Harappan word for it.

S. H. Ritti: That is what I mean. Some sort of cult represented on the seal was adopted by the Indo-Aryan people. That is what you bring up in your paper...

I. Mahadevan: Yes. That is the central theme of my paper.

S. H. Ritti: But, you contend that this is exactly the description of the Soma cult performed by the Vedic Aryans...

I. Mahadevan: That's a good question. In fact, this question was put to me by Prof. Bh. Krishnamurti, who read the first draft of my paper. He said that if this Soma cult were to be traced to the non-Aryan source, he found it difficult because there is no evidence of a loan-word or a borrowed element in the Navamandalam of the Rgveda. One possibility is that the time between the borrowal of the substratum cult by the earliest Indo-Aryans and the time when the Rgveda was compiled was so large that the Aryans described in their own language the cult, which had already become a part of their life.

M. Tokunaga (Tokyo): Rejecting Wasson’s theory that Soma was amanita muscaria, Prof. Kashikar of Poona holds that Soma was a kind of ephedrin, which is found in Afghanistan and in the north-western part of the India. If so, I wonder if it affects your hypothesis.

I. Mahadevan: I am convinced that there is no better identification of the true nature of Soma than Wasson’s. However, so far as my present thesis is concerned, what matters is the filter, which is central to the cult, and nothing beyond that.